Industrial Base Analysis

A Readiness Tool

Presented By:

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Defense Contract Management Agency

Outline

- Mission
- Operations
- Industry Surge Analysis
- Assessment
- Summary

We Enable the Warfighter to Win

Industrial Analysis Mission

Ensure US industrial base is robust, competitive and technologically current
- DSB

- **Mission:** ***Support Defense Department <u>Corporate Level</u> Industrial Capability Analyses for Major Weapon Systems Acquisition, Logistics and Readiness Programs***
- **Directly Supports DoD Initiatives**

Improve the Health
of the Defense Industrial Base
- Aldridge

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Applications

- Informed DoD Industrial Base Investment Decisions
- Planning for and Maintaining Military Readiness
- Weapon System Economic/Cost Considerations
- Preservation of Essential/Unique Industrial Capabilities
- Acquisition Strategies
- Supplier Reliability
- Maintaining Future Competition

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What is Industrial Analysis?

IB 101

- **WHO:** **Private Firms, Organic Facilities, Academic institutions, R&D centers**
- **WHAT:** **Design, Develop, Manufacture, Upgrade, Maintain DoD Weapon Systems**
- **WHEN:** **Past, Present and Future**
- **WHERE:** **Domestic and International**
- **WHY:** **Assure Industrial Infrastructure that Supports National Security**

Products

- **Industrial Capability Assessments**
  - ***Skills, Technologies, Processes, Facilities/Equipment, Risk and Investment***
  - ***Domestic and Foreign Alternate Sources of Supply***
- **Industrial Surge Analysis**
- **Financial and Operations Analysis**
- **Economic Analysis and Forecasts**
- **Critical Infrastructure Protection**

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Industrial Analysis Team

DIRECTOR
Brigadier General Edward M. Harrington, USA

Executive Director
Mr. Robert Schmitt
Contract Management Operations

Director
Mr. Sydney Pope
Contract Technical Operations
T

Director
Mr. Bill Ennis
Industrial Analysis Center

District and CMO
Industrial Analysis Managers

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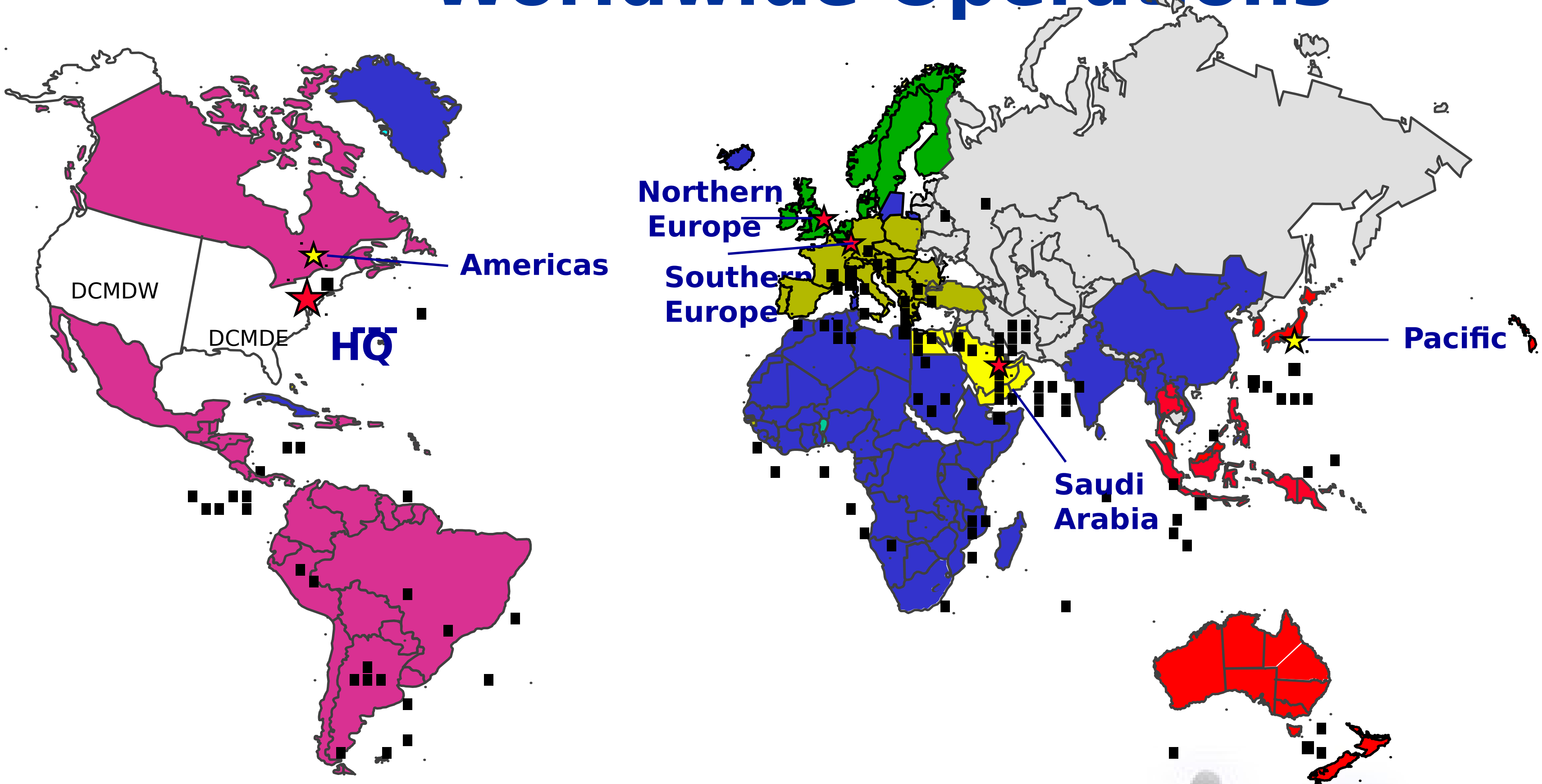
Worldwide Operations



U.S. Field Offices
International Field Offices Covering 21 Countries

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Customers

OSD

DUSD IP
ASD C3I
Defense Acquisition University
dustrial College of the Armed Forces

WARFIGHTERS

Joint Staff (J4/J8)
CENTCOM
JFCOM

ARMY

ASA (ALT)
HQ AMC
Army War College

NAVY

ASN
NAVAIR
NAVSEA

AIR FORCE

AFMC

MDA

USMC

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Industrial Surge Analysis

- **Prime and Subtier Production Capabilities**
- **Manufacturing Capacity and Lead Times**
- **Production Rates (Current and Maximum)**
- **Critical Subcontractors Limiting Factors**
- **Investment Costs and Schedules**

Decision Quality, Value Added Advice and Information

Industrial Surge Analysis Since 911

- **Industrial Surge Analytic Support**
  - Missiles/Munitions: JDAM, TLAM, JSOW, GBU-10
  - CALCM, PAVEWAY, SLAM-ER, WCMD, MAVERICK
  - Major Systems/Subsystems: Inertial Measurement
  - Units (IMUs), Thermal Batteries, GPS Component
  - Other Areas: UAVs, Comm Batteries, Bomb Explosive
- **Alternate Sources**
  - Qualifiable or Potential
  - Time and Cost
- **Competing Industrial Resources**
  - Design/Engineering, Skilled Trades
  - Production Lines
  - Test Cells

Bottom Line Assessment

- **Prime Contractors are Technologically Capable of Designing, Producing and Maintaining Weapons**
  - ***Challenges***
    - Rationalization
    - R&D – Technology Development
    - Financial Performance
    - Affordability
    - Human Resources
- **Critical Subcontractors - Increased Capability Risk**
  - ***Challenges***
    - Surge Production Capacity
    - Competing Demands
    - Financial Performance
    - Vertical Integration
    - Competition

Fixed-Wing Aircraft Industry

- **The Fixed-Wing industrial base is generally healthy. The military aircraft business segments at the Prime Contractors have remained profitable over the last 3 years.**
- **Challenges**
  - Operational Performance - Mounting problems associated with an aging aircraft fleet further exacerbated by current high op-tempo. Replacements needed for KC-135, P-3, and EA-6B fleets. Unplanned structural modification required to keep aging F/A-18 and F-16 aircraft flying.
  - Rationalization - Significant idle production capacity remains at the prime integration sites. Some incremental footprint reductions are ongoing; however, no site closures are expected due to increased short-term programmatic risk.
  - Affordability - Tactical Aircraft

Fixed-Wing Aircraft Industry (cont.)

- **Human Resources** - A gradual erosion of industry’s front-end design capabilities (workforce aging) appears likely with no foreseeable opportunities to develop a new manned Tactical Aircraft. For some contractors this loss may be mitigated by UCAV development work.
- **Competition** - The unprecedented level of international partnering on the Joint Strike Fighter program will accelerate globalization of the industrial base. Long-term implications for key domestic subsystem suppliers is currently unclear.

Rotary-Wing Aircraft Industry

- **The Rotary-Wing Industrial Base is strong and healthy and all Prime Contractors supplying helicopters for DoD are currently profitable.**
  - Prime Contractors have strong sales with spares, kits, mod/upgrades, FMS.

- **Challenges**
  - Rationalization - Capacity utilization levels at the four prime sites are relatively low, averaging 46% for 2002; should remain stable for at least the next 2 years.
    - *The current budget for the V-22 and RAH-66 programs represents 45% of the current Rotary-Wing budget and will represent 39% in FY06. Consolidation within the Rotary-Wing Aircraft industry is not likely unless a major program is cancelled.*
  - Competition – Joint Agreements
  - Technology Development and Operational Performance
  - Affordability
  - Competition - Sub-tier Manufacturing

Unmanned Aerial Vehicle Industry

- **The Industrial Base is in place to handle present requirements (low volume buys)**

- **Challenges**
  - Industry Surge Capacity- Prime Contractors state that production rates could be substantially increased over a period of time. Critical sub-tier suppliers state the same but need time to ramp up
  - Affordability - Operational “fixes” versus Future Systems Development
  - Competition and Vertical Integration

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Precision Guided Munitions and and Tactical Missile Industry

- **The Munitions Sector is healthy. There has been a 168% increase in funding since FY 2000 driven by increasing purchases of precision guided munitions (PGMs).**

- **Challenges**
  - Surge Capacity: Certain critical components of missiles and PGMs are possible risk areas due to capacity and capability constraints.
  - Competition: critical components

Ammunition Industry

- **The Ammunition market is mostly defense driven and low volume. Prime and critical sub-contractors that comprise the ammunition industrial are generally healthy. The organic base is in a state** … **tion.**

- **Challenges**
  - Rationalization - sig … oduction capacity remains at all levels
  - Technology Development - Low Procurement Levels
  - Critical Sub-Contractor Financial Performance (DoD Market Dependence)
  - Competition - Sub-tier Manufacturing
  - Human Resources – Work force aging at organic sites

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Combat Vehicle Industry

- **Adequate capabilities and capacity for vehicle system integration, mods/upgrades/ maintenance and technology insertions are currently in-place for the Combat and Tactical Wheeled Vehicle Sectors to meet current DoD Legacy and Interim Force program requirements**

- **Challenges**
  - Competition – Effects of program cancellations and reductions (Crusader, Abrams, Bradley and other Remanufacture/ Mods/Upgrades)
  - Technology Development efforts for the FCS program

Solid Rocket Motor Industry

- **Solid Rocket Motor (SRM) industry is low volume and predominately defense oriented**
- **Challenges**
  - Rationalization - Over capacity continues to be an issue in the SRM industry. Capacity utilization averaging less than 50%
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  - Financial Performance - Sales and employment levels are steadily decreasing.
  - Technology Development - Propellants, Nozzles and Casing Materials

Launch System Integration Industry

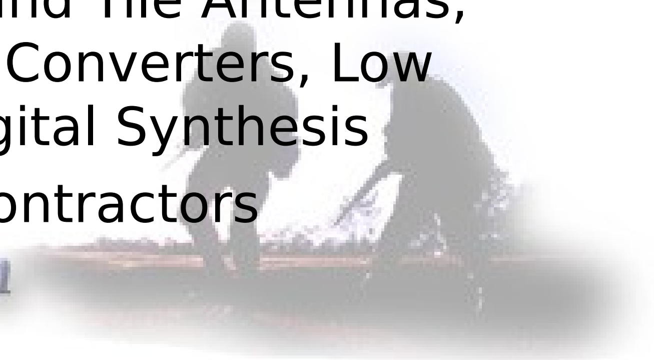
- **Launch System Integrator (LSI) workload is predominantly Expendable Launch Vehicles ELVs).**
  Adequate technology capability exists within the LSI industry.

- **Challenges**
  - Rationalization- Overcapacity continues at LSI facilities; capacity utilization is averaging less than 40%
  - Profitability- Decrease in demand for satellites has resulted in reduced requirement for ELVs

Radar Industry

- **The RADAR industry is robust with overcapacity continuing to be reduced through consolidations and reorganizations. Strong sales revenue and profitable operations for prime contractors.**

- **Challenges**
  - Future Competition - Due to decreased demand, the number of competitors has been reduced, however, there are no current competition issues
  - Technology Development - Silicon Carbide, Gallium Nitride Power Transistors, Subarrays and Tile Antennas, Large Dynamic Range Receivers, A/D Converters, Low Phase Noise Oscillators and Direct Digital Synthesis
  - Financial Performance - Critical Subcontractors



Foreign Sourcing

- Utilization of the identified foreign sources does not impact U.S. military long-term readiness.
- Utilization of the foreign sources does not impact the economic viability of the national technology and industrial base.
- In most cases, domestic suppliers are available for the parts, components and materials provided by the foreign sources.

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Summary

The Health of the Industrial Base is a High Departmental Priority

- **Weapon System Acquisition**
  - ***Effective Risk Management***
  - ***Informed Industrial Base Investment Decisions***
- **Industrial Surge Analysis**
  - ***Warfighter Planning and Decision Making***
- **Homeland Defense**
  - ***Critical Infrastructure Protection Analysis***